DOCUMENT RESUME

ED 120 472 CE 006 771

AUTHOR Pucel, David J.; Luftig, Jeffrey T.
TITLE The Reliability of the Minnesota Vocational Follow-Up Student Questionnaire.
INSTITUTION Minnesota Univ., Minneapolis. Dept. of Vocational and Technical Education.
SPONS AGENCY Minnesota State Dept. of Education, St. Paul. Div. of Vocational and Technical Education.
PUB DATE Dec 75
NOTE 50p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage
DESCRIPTORS *Comparative Analysis; Data Analysis; Followup Studies; *Graduate Surveys; Post Secondary Education; *Questionnaires; *Reliability; Tables (Data); Vocational Education; *Vocational Followup
IDENTIFIERS Minnesota

ABSTRACT

An assessment of the reliability of the followup questionnaire given to 715 graduates of the postsecondary Minnesota Area Vocational-Technical Institutes is presented. The questionnaire was designed to gather information that would facilitate decision making concerning vocational programs. Reliability was based on the consistency of group responses which are categorized according to their rate of response: early-returners, intermediate-returners, and late-returners. A random sample from each of the three groups was given the followup questionnaire for a second time one week after they completed the questionnaire originally. Data from separate items in the questionnaire were analyzed based on the original and duplicate responses of each group using the following methods: chi-square, perdent of overlap, degrees of freedom, and significance level. The analyses revealed that the data gathered from the student followup questionnaire were sufficiently reliable to be used as a source of information. However, some items indicated less reliability and included those which required students to judge the training curriculum, school and community services, and items relative to salary and number of months employed. A copy of the questionnaire and 21 tables which present the crosstabulation of original and duplicate responses are appended. (Author/EC)

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ED120472

THE RELIABILITY OF THE MINNESOTA VOCATIONAL FOLLOW-UP STUDENT QUESTIONNAIRE

BY

David J. Pucel, Ph.D.
Professor
Department of Vocational and Technical Education
University of Minnesota

AND

Jeffrey T. Luftig
Research Fellow
Department of Vocational and Technical Education
University of Minnesota

This study was funded by the Minnesota State Department of Education, Division of Vocational and Technical Education, as part of project number 2-C-75. Points of view or opinions stated in this report do not necessarily represent official Minnesota State Department of Education position or policy.

Department of Vocational and Technical Education
125 Piek Hall
University of Minnesota
Minneapolis, Minnesota 55455
December, 1975

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FORWARD

As the use of follow-up information as a basis for making program decisions in vocational education expands, it becomes increasingly important to investigate the quality of that information. This study examined the reliability of the information gathered from graduates of the Minnesota post-high school AVTIs using the Minnesota Vocational Follow-Up System student follow-up questionnaire. The results indicate that most of the data gathered with the questionnaire are reliable. However, they do suggest a need for the revision of selected items.

David J. Pucel

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Background

Between 1970 and 1975, the Vocational Follow-Up System was developed at the University of Minnesota. It progressed through an intensive instrument development program to gather information needed from students and graduates of the Minnesota Area Vocational-Technical Institutes and their employers to facilitate decision-making concerning the vocational education programs in Minnesota. The validity of the instruments was incorporated by obtaining the cooperation of those people who would be making decisions based on the data, and determining the types of questions and data they felt they needed to make decisions. However, this intensive developmental program left little time to determine the reliability of the instruments.

This study was designed to assess the reliability of the student follow-up questionnaire since a primary characteristic of useful data is reliability. Unless the data gathered are reliable and can be duplicated by other data gatherers, the data is of little use to decision-makers.

Past experience and the literature have indicated that the reliability of student follow-up information might be different for those who return a mail questionnaire quickly after receiving it, as contrasted with those who need continual prodding through more than one follow-up attempt. Therefore, the sampling plan of this study was designed to insure that a representative number of people who were early returners of the questionnaire, intermediate returners, and late returners be included in the sample. The data gathered were then analyzed for the composite group.

Method

In order to determine the reliability of the student follow-up questionnaire, it was decided to determine the consistency of responses for the group rather than individuals. This decision was based on the fact that the Vocational Follow-

Up System follow-up data have always been summarized and reported for groups. The analyses were designed to compare the original responses of a group with the duplicate responses of that same group. The two sets of data were gathered by sending the same people duplicate questionnaires within one week of receiving their responses to an original questionnaire. See the "population" section for a description of the graduates included in this study and the sampling plan. The duplicate questionnaire was accompanied by a cover letter which appealed to the graduate to complete the duplicate questionnaire and return it.

Each question or item on the questionnaire (Appendix I) was analyzed separately, since the instrument was not developed to yield one total score. The analysis procedure is discussed in detail in the section entitled "Analysis and Data Reporting Procedures."

Population

The population for this study consisted of graduates of the post-secondary Minnesota Area Vocational-Technical Institutes who graduated during March of 1973 and who were followed-up during March of 1974. The entire population of 715 graduates was sent follow-up questionnaires (see Appendix I) during March of 1974. Those who did not return the follow-up questionnaire within three weeks were sent a second follow-up questionnaire, Those who did not respond to the second follow-up attempt within three weeks were sent a third follow-up questionnaire. In order to insure that the sample to receive the duplicate questionnaire was somewhat representative of the total group sent original questionnaires, the sample was stratified in terms of when a person returned the original questionnaire. Of the 715 people who were sent first questionnaires, 422 returned those questionnaires. These people are identified in this study as the "early-returners". Fifty people who responded to the first questionnaire, or early-returners, were randomly sampled to receive a duplicate questionnaire. Of these fifty people, forty-seven, or ninety-four percent returned the duplicate questionnaire. Of the 280 people who were sent second questionnaires,

one hundred and two responded. These people are identified as "intermediate-returners." Forty-five intermediate-returners were randomly sampled and sent duplicate questionnaires. Of the forty-five intermediate-returners, thirty-five returned their duplicate questionnaire for a return rate of seventy-eight percent. Of the 163 people who were sent third follow-up questionnaires, twenty-five people were sent duplicate questionnaires. These people are identified in this study as "late-returners". In order to meet the time schedule of this study, the first twenty-five late returners were included in the study. Sixteen out of the twenty-five, or sixty-four percent of the late-returners, returned their questionnaires. All of the people who returned duplicate questionnaires were then combined into the sample used in this study. Eighty-two percent of the total group sent duplicate questionnaires returned the duplicate questionnaires. The group sizes and return rates are summarized in Table 1, along with the total sample information.

The proportion of people returning the duplicate questionnaire decreased from the "early-group" to the "late-group". This is understandable when one considers that it took three follow-up attempts to get the "late-group" to respond to the original questionnaire.

Table 1

Return Rates of Duplicate Questionnaires For Each Group And For The Total Sample

Group	Number of Duplicate Questionnaires Sent	Number of Duplicate Questionnaires Returned	Percentage (%) Of Duplicate Questionnaires Returned
Early	50	47	94%
Intermediate	45	35	78%
Late	25	16	64%
Total Sample	120	98	82%

Analysis and Data Reporting Procedures

The reliability of the Follow-Up Questionnaire was determined by examining the stability of the data over repeated measures. The graduates were sent the original follow-up questionnaire and one week after completing that questionnaire, were sent a duplicate. The information provided on the two administrations of the questionnaires was compared. Since the follow-up data always have been reported as group statistics, the data were analyzed by comparing the original responses of the group with the duplicate responses of the group.

Each item was analyzed separately using a chi-square test of independence to determine if there was a significant relationship between the responses given on the original and duplicate questionnaires. If there was a significant relationship, the percent of exact duplication in responses was reported to indicate the extent to which the relationship detected was the desired relationship. If a significant relationship was found, one would hope that this relationship would mean that people responded the same way on the original and duplicate questionnaires rather than indicating that most people responded in exactly the opposite way on the original and duplicate questionnaires. The chi-square test allowed us to determine if there was a relationship, while the percent of exact overlap or duplication of responses allowed us to determine if that relationship was in the desired direction.*

The actual analysis of the data was conducted using the Fastabs subprogram of the Statistical Package for the Social Sciences (SPSS) program at the University of Minnesota's computer facility. The following example illustrates

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* Persons familiar with statistics might question the use of chi-square to analyze the data presented in this study. First, there are many cells with low expected frequencies; second, this is a repeated measures design; and third, an indication of significant relationship does not directly indicate the nature of that relationship. After consultation with a number of statisticians and after reviewing a number of statistics books, we decided that no better technique could be identified and that it was important to get an indication if the relationships detected could be due to chance. The percent of exact overlap was then adopted to shed light on whether any significant relationships were the desired relationships.

how the data were analyzed. This example uses the actual data collected relative to "reasons given for being unavailable for employment". This questionnaire item appears in Appendix I.

Table 2 presents the response pattern of the total sample on the original and duplicate questionniares for the item relative to reasons for unavailability. The possible choices which graduates could make are indicated on the table. They were 1 = Military, 2 = Further Training or Education, 3 = Illness, 4 = Housewife or Pregnancy, 5 = Presently not working and not interested in employment, and 6 = Other. If graduates did not indicate a reason why they were unavailable for employment, their responses were classified as "no response", or "0". These graduates were available for employment. Throughout every table generated in this study, 0 = no response.

The column headings across the top of the table represent the categories of responses made by graduates on the duplicate form. The row headings down the left hand side of the table represent the categories of responses made by graduates on the original form. You will notice that all possible responses are not listed across the top or down the side. Only the responses that at least one person chose are listed.

The cells formed by the intersections of the responses on the original and duplicate questionnaires contain the raw numbers (top number) and percentage (lower number) of graduates responding each way to the item on both questionnaires. For example, note that 85 graduates, or 86.7% of the total sample made no response to this item on both the original and duplicate questionniare. They were not unavailable for employment. This number can be located on the table by moving across to row "0", representing "no response" on the original form, until intersecting column "0", representing "no response" on the duplicate form, and finding that the numbers in that cell appear as:

85

86.7

Table 2

Crosstabulation of Original and Duplicate Responses Relative To Reasons for Being Unavailable for Employment

DUPLICATE

ORIGINAL	0 No Response	1 Military	2 Further Training or Education	4 Housewife or Pregnancy	5 Presently Not Interested In Employment	6 Other	Row Total
0 No Response	N = 85 86.7 = %	0 0	1 1.0	1 1.0	0 0	1 1.0	88 89.8
1 Military	0 0	2 2.0	0 0	1 1.0	0 0	0 0	3 3.1
2 Further Training or Education	1 1.0	0 0	0 0	0 0	0 0	0 0	1 1.0
3 Illness	1 1.0	0 0	0 0	0 0	0 0	0 0	1 1.0
4 Housewife or Pregnancy	0 0	0 0	0 0	2 2.0	1 1.0	0 0	3 3.1
6 Other	1 1.0	0 0	0 0	0 0	0 0	1 1.0	2 2.0
COLUMN TOTAL	88 89.8	2 2.0	1 1.0	4 4.1	1 1.0	2 2.0	98 100.0

CHI-SQUARE = 161.49836
SIGNIFICANCE = .0000

The row totals are provided at the extreme right side of the table. They indicate the total number of people who gave each response on the original questionnaire. The column totals are presented on the bottom of the table. They indicate the total number of people who gave each response on the duplicate questionnaire. Additionally, the total number of graduates in the sample is provided at the lower right corner of the table.

The larger the number of responses which were the same on the original and duplicate questionnaires, the more consistent or stable the data were, and therefore, the more reliable. In this example, approximately 92 percent of the responses given by the group on the original questionnaires were the same as those given by the group on the duplicate questionnaires (85 + 2 + 2 + 1/98 = .918).

Below the table is the result of the computer analysis of the data within the table. In order to understand the chi-square results, it is important to recognize that had the graduate's responses been exactly the same on the original and duplicate questionnaires, numbers would only have appeared in cells 0-0, 1-1, 2-2, 3-3, etc. Since this is a consistent relationship, the chi-square value would have been extremely high, indicating that this pattern could have occurred by chance very rarely. The fact that the results from the original and duplicate questionnaires would have been exactly the same indicates that this relationship is the desired relationship. In our example, all of the responses from the original and duplicate questionnaires were not the same. This is true in most of the tables. About 92 percent of the responses were the same. However, the relationship was consistent enough to yield a large chi-square value which would be due to a chance relationship less than one time in ten-thousand. All of the analyses in this study yielded highly significant results (probability of relationship being due to chance was less than one out of ten-thousand). However, there was variation in the percent of exact overlap in responses between the original and duplicate questionnaires.

The detailed tables, such as Table 2, can be found in Appendix II for those analyses where the percent of overlap between original and duplicate responses was 75 percent or less. These analyses yielded statistically significant results, but the overlap was smaller than what some people might consider to be practically significant. Therefore, these tables are presented in the appendix to allow the reader to observe the actual distribution of responses. The analysis data in the body of the paper only present the percentage of overlapped responses, the chi-square value, and the likelihood that the relationship detected between the original and duplicate responses for each question analyzed might be due to chance.

Results

The results of the analyses will be presented in the order that the questions appear on the questionnaire. The first series of items within the Follow-Up Questionnaire are those within section II, which gathers data concerning the additional training experienced by graduates during the first year after attending an AVTI. (See Appendix I.) Although this section contains only one question, the graduates could have responded to one or more of eight different categories: none; on-the-job training; public AVTI; private vocational programs; university, college and/or junior college; apprenticeship; specialized occupational military training; and other. Due to the large number of categories that would be generated if all of these categories were combined in one table, each of the categories were evaluated separately as separate items. The results are shown in Table 3.

Table 3

Results of the Comparison of the Original And Duplicate Responses to the Items Concerning Additional Training After Graduation

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
1. None	69.75	93.9	1	.0000
2. On the Job Training	45.79	90.8	1	.0000
3. Public A.V.S. Program	31.39	95.9	1	.0000
4. Private Voc. Program	23.99	100.0	1	.0000
5. Univ., College and/or Jr. College Program	62.07	98.0	1	.0000
6. Apprenticeship	49.85	96.9	1	.0000
7. Specialized Occ. Mil. Training	54.36	100.0	1	.0000
8. Other	16.85	95.9	1	.0000

The results of the analyses of the data to determine the reliability of the information gathered through the student questionnaire pertaining to additional training during the first year after graduation indicates that these data appear to be reliable. The statistical analyses indicate that the relationship between the data gathered from the original and duplicate questionnaires could occur by chance less than one time out of ten-thousand. The percent of overlapped responses to the various items ranged from 90.8 to 100.

Section III of the questionnaire has two items: (1) employment status of the graduate one year after graduation (i.e., employed, unemployed, unavailable for employment), and; (2) the reason for unavailability for employment. (See Appendix I.) The results of the analyses of these items are presented in Table 4.

Table 4

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning Present Employment Status and Reasons for Unavailability

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Present Employment Status	96.32	93.9	4	.0000
Reasons for Unavailability	161.49	91.8	25	.0000

The data presented in Table 4 indicate that both items showed a significant relationship between the responses on the original and duplicate questions. The percents of overlap were 93.9 and 91.8. Therefore, both of these items were judged to be reliable.

Section IV of the questionnaire contains seven items pertaining to work history since graduation. The first three items within this section pertain to the first job held by the graduate. They are: (1) whether the first job held by the graduate was or was not related to the training received; (2) whether the first job held by the graduate was a full or part-time job; and (3) the number of months that the first job was held after graduation. The second three items are exactly the same as the first three, but they pertain to the present job (rather than the first job) held by the graduate one year after graduation. The final, and seventh, item within this section relates to the number of jobs held by the graduate after leaving the AVTI.

It is important to note that the two items associated with the relatedness of the first and present jobs held by the graduate to the training received at the AVTI were the only two items evaluated in this study which were not coded or entered for card punching by the graduates. That is, a graduate's job was compared to the training he/she received by personnel at the Vocational Follow-Up System (VFUS). Giving the graduate's evaluation of the job relatedness consideration,

the VFUS personnel coded the first and present job relatedness. The jobs were coded as closely related, broadly related, or unrelated to the training received. Therefore, the consistency of the responses to these items was an indication of the consistency of the actual graduate responses and the coding procedures used by the VFUS staff. The results of the data analyses for this section are presented in Table 5.

Table 5

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning Job History During the First Year After Graduation

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
First Job				
(1) Relatedness	218.44	90.8	9	.0000
(2) Full or Part-Time	122.45	93.9	4	.0000
(3) No. of Mos. in Job	443.41 (N=97)	61.9	132	.0000
Present Job				
(4) Relatedness	178.53	86.7	9	.0000
(5) Full or Part-Time	111.96	88.8	4	.0000
(6) No. of Mos. in Job	314.19	48.0	132	.0000
(7) Total No. of Jobs After Graduation	240.49	84.7	20	.0000

Table 5 indicates that all of the data related to these items were reliable except for those items pertaining to the number of months employed. An examination of Tables A-1 and A-2 in the appendix shows that most of the disagreement between the responses to the original and duplicate questionnaires pertaining to these items was due to the graduate's willingness to respond. About 20 percent of the graduates were not willing to respond to the item concerning the number of months employed on the first job on both questionnaires. They responded on either the original or duplicate questionnaire but not both. About 23 percent of the graduates did this when responding to the item concerning the number of months employed on the present job.

Section V of the Follow-Up Questionnaire contains items related to the advancement of the graduates. This section includes two sub-sections. The first assesses if any formal advancement in job classification (other than just salary increases) had been experienced by the graduate during the year. The second sub-section assesses the monthly salary ranges of the graduates' first job and present job. (See Appendix I) Table 6 presents the results of the analyses of these three items.

Table 6

Results of the Comparison of Original and Duplicate Responses to the Items Concerning Formal Job Advancement and Salary

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Formal Advancement	64.18	82.7	4	.0000
First Job Monthly Salary	436.62 (N = 97)	66.0	110	.0000
Present Job Monthly Salary	371.30 (N = 97)	58.8	121	.0000

The results obtained from the original and duplicate questionnaires related to formal advancement appear to be reasonably reliable. The information on first and present salaries does not appear to be highly reliable. The percentage of exact overlap for these items was 66, and 58.8 percent. An examination of Tables A-3 and A-4 in the appendix indicates a similar problem to that detected relative to the data gathered on the number of months employed. About 15 percent of the graduates were not willing to respond to the first job monthly salary item on both questionnaires. They responded to one or the other but not both. About twenty-two percent were not willing to respond to the present job monthly salary item on both questionnaires.

Section VI includes 13 items designed to assess a graduate's satisfaction with various aspects of his/her present job. The first item assesses the graduate's overall feeling of satisfaction with the job. The remaining 12 items relate to satisfaction with specific aspects of the job. (See Appendix I.) Table 7 presents the results of the analyses for these 13 items.

Table 7

Results of the Comparison of
Original and Duplicate Responses
To The Items Concerning Job Satisfaction

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Overall Satisfaction	134.47	73.5	16	.0000
Salary	114.57	72.4	9	.0000
Fringe Benefits	122.84	76.5	9	.0000
Potential for Advancement	126.19	71.4	9	.0000
Supervision and Management	101.31	73.5	9	.0000
Co-workers	138.35	81.6	9	.0000
Company Policies and Practices	114.18	72.5	9	.0000
Pace (Speed) of Work	70.80	74.5	9	.0000
Facilities and Equipment With Which to do the Job	104.29	76.5	9	.0000
Working Conditions	97.55	75.5	9	.0000
Variety of Work Tasks	119.04	73.5	9	.0000
Job Security	115.72	80.6	9	.0000
Safety Conditions	87.24	77.6	9	.0000

The analysis of the data for each satisfaction item indicates that the relationships between responses to the original and duplicate questionnaires would occur by chance less than one out of ten-thousand times. However, these data do not appear to be as reliable as the previous items which were primarily concerned with obtaining a description of employment status. The tables for those items which had an overlap of less than 75 percent are presented in appendix (A-5 through

A-10). An examination of the data presented in these tables reveals that the graduates who changed their minds between the original and duplicate questionnaires did not do so in a consistent way.

Section VII contains two items, both related to the graduate's assessment of the curriculum presented at the AVTI. The first item is addressed to performance skills presented, and the second to technical knowledge presented. (See Appendix I.) The results of the analyses for this section are presented in Table 8.

Table 8

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning the Training Curriculum

N = 98

Item	Chi-Square	Percent Of Overlap	Degrees of Freedom	Significance Level
Performance Skills	179.96	71.4	16	.0000
Technical Knowledge	174.96	65.3	16	.0000

The data presented in Table 8 indicate that there was a statistically significant relationship between the original and duplicate responses to the items related to curriculum. However, the overlaps of responses to the items dealing with performance skills and technical knowledge were only 71.4 and 65.3 percent. An examination of Tables A-11 and A-12 containing the graduate's actual response patterns for these items indicated that the responses to the duplicate questionnaire tended to be less extreme than responses to the original questionnaire. People who gave low ratings on the original questionnaire tended to give higher ratings on the duplicate. The opposite also appeared to be true.

Section VIII of the student follow-up questionnaire contains two items designed to gather information concerning the graduate's assessment of the facilities and equipment at the AVTI attended. (See Appendix I.) The results of the data

analyses for this section are presented in Table 9.

Table 9

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning AVTI Facilities and Equipment

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Ability to Adapt to Equipment on Job	168.93	83.7	9	.0000
Comparison of AVTI Equipment and Facilities With Those on Job	124.50	83.7	9	.0000

As shown by the data presented in Table 9, the items related to facilities and equipment appear to be reliable.

Section IX contains four items designed to determine the graduate's assessments of the quality of instruction received at the AVTI attended. (See Appendix I.) Table 10 presents the results of the data analyses for this section.

Table 10

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning the Quality of AVTI Instruction

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Teaching Quality	77.65	83.7	9	.0000
Instructor Knowledge	44.91	89.8	6	.0000
Instructor Interest	75.32	78.6	9	.0000
Instructor Up To Date	86.11	83.7	9	.0000

The results presented in Table 10 indicate that each of the items dealing with the quality of instruction appear to be reliable.

Section X of the student follow-up questionnaire contains one item which asks the graduates to indicate whether they would choose the program again if they had the opportunity. (See Appendix 1.) The results of the data analysis are presented in Table 11.

Table 11

Results of the Comparison of the Original and Duplicate Responses to the Item Concerning Choosing the Program Again

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Choose Again	89.28	90.8	4	.0000

Table 11 indicates that the item related to whether a person would choose a program again appears to be reliable.

Section XI encompasses fourteen individual items within three sub-sections designed to gather data related to the graduate's assessment of school and community services received while attending the AVTI. The first sub-section, containing one item, asks the graduate to judge what agency was of the greatest help in securing his/her first position (placement). The second sub-section contains ten items, all of which are related to the graduate's judgement of the quality of services provided by the AVTI attended. The third sub-section includes three items designed to assess the graduate's judgement related to the quality of services and facilities provided by the community in which the AVTI was located. (See Appendix I.)

The results of the data analyses for these items are presented in Table 12.

Table 12

Results of the Comparison of the Original and Duplicate Responses to the Items Concerning School and Community Services

N = 98

Item	Chi-Square	Percent of Overlap	Degrees of Freedom	Significance Level
Placement Assistance	322.87	84.7	30	.0000
Job Placement	132.99	70.4	16	.0000
Counseling with Personal Problems	122.69	69.4	16	.0000
Help in Making Career Decisions	91.66	57.1	16	.0000
Help in Securing Part-Time Employment	163.56	74.5	16	.0000
Help in Obtaining Financial Assistance	128.61	67.4	16	.0000
Help in Securing Housing	146.94	77.6	16	.0000
Youth Organizations	140.49	77.6	16	.0000
Recreational Programs	148.48	72.5	16	.0000
Study, Library and Other Learning Resource Facilities	150.11	64.3	16	.0000
Health Services	102.96	60.2	16	.0000
Housing	154.25	72.5	16	.0000
Job Opportunities	113.48	68.4	16	.0000
Recreation Facilities	124.45	66.3	16	.0000

Although all of the analyses in this section yielded statistically significant results, only the items pertaining to who gave the most assistance with finding a first job, youth organizations, and help in securing housing had an exact overlap of more than 75 percent. Tables A-13 through A-22 in the appendix show the exact data for the other items in this section. The relatively small response overlaps appear to be partially due to the way in which the grauduates responded to category four (does not apply). On either the original or duplicate questionnaire they took the time to actually rate the service, but on the other, many just indicated "does not apply".

Summary and Conclusions

It appears that there is a significant relationship between the way a person responds to two different administrations of the student follow-up questionnaire. The analysis of each of the items contained in the student follow-up questionnaire indicated a statistical significance relationship.

However, an examination of the exact overlap in responses between the returns from the sample on the original and duplicate questionnaires indicated that certain groups of items appear to be more reliable than others. The items pertaining to a description of the graduates' work history seemed most reliable. All had response overlaps that were between 82 and 100 percent, with the exception of the salary information and the number of months employed. In both of these cases, the reason for there not being substantial agreement in the responses seems to be the graduates' willingness to respond. Some people who responded to these items on the original questionnaire did not respond on the duplicate. The reverse also occurred.

The information pertaining to the graduates' judgements of the facilities and equipment, quality of AVTI instruction, and whether they would choose the same program again was second in terms of overlap of responses between the original and duplicate questionnaires. The distribution overlaps for these data ranged from 78.6 to 90.8 percent. Therefore, these items were judged to be second in terms of reliability. The items pertaining to job satisfaction appeared to be third in terms of reliability. The distribution overlaps ranged from 71.4 to 81.6 percent. There did not seem to be a consistent pattern in those responses that did not overlap.

Graduates provided the least consistent responses to items pertaining to the training curriculum, and school and community services, with the exception of the item pertaining to placement assistance. The distribution overlaps for these items (with the exception of placement assistance) ranged from 57.1 to 77.6 percent.

An examination of the data pertaining to the training curriculum indicated that people tended to respond less extremely on the duplicate questionnaire than they did on the original questionnaire. If they rated the curriculum very high on the original, they rated it lower on the duplicate. The reverse also seemed to occur.

An examination of the data pertaining to school and community services revealed that the graduates were not willing to take the time to respond. Many were willing to respond to an item on either the original or duplicate questionnaire, but not on both questionnaires. On the other questionnaire they just indicated "does not apply".

In conclusion, the writers judge that the data gathered from the student follow-up questionnaire are sufficiently reliable to be used as one source of information in decision-making concerning vocational programs. The data do indicate, however, that some of the items should be reviewed and possibly revised. These items include those which require students to judge the training curriculum, and school and community services. They also include those items relative to salary and number of months employed.

The reader should be cautioned not to interpret the results of this study as a case to eliminate these items, for they do provide information useful for decision-making. They should be reviewed and, if need be, revised to make them more effective.

APPENDIX I

Vocational Follow-Up System
Department of Vocational & Technical Education
University of Minnesota
1307 University Avenue S.E., Rm 302
Minneapolis, Minnesota 55414

(1) 0 7 (3) (8) (11) (13)

PLEASE LEAVE ALL RED SQUARES BLANK

Date (14) Month (17) Year

FOLLOW-UP QUESTIONNAIRE

ALL RESPONSES WHICH YOU GIVE WILL BE KEPT STRICTLY CONFIDENTIAL

GENERAL DIRECTIONS: Please complete ALL sections that apply. When you have completed the form return it in the enclosed return-addressed, stamped envelope. Your frank response is very important in order that the area vocational-technical institutes may continue to improve their programs.

I. PERSONAL INFORMATION

A. Name _____ (Last) (First) (Middle) B. Soc. Sec. No. (18) (26)

C. Present Address _____ (Street or Rural Route)

_____ (City) (State) (zip code)

D. Home Phone _____ (area code) Work Phone _____ (area code)

II. ADDITIONAL TRAINING

A. Since attending the area vocational-technical institute, what further educational training have you taken part in? (You may check more than one.)

(27) [1] None

(28) [1] On-the-job training (employer-sponsored training program)

(29) [1] Public area vocational school programs

(30) [1] Private vocational programs

(31) [1] University, college and/or junior college programs

(32) [1] Apprenticeship

(33) [1] Specialized occupational military training

(34) [1] Other _____ (specify)

III. EMPLOYMENT INFORMATION – Present status

A. Are you presently employed, unemployed or unavailable for employment? (Check *only* one of employed, unemployed, or unavailable for employment.)

(35)

[ ] Employed

[ ] Unemployed (You are actively looking for a job but cannot find one.)

[ ] Unavailable for employment (You cannot accept a job for one of the following reasons. Please check appropriate reason.)

(36)

[1] Military

[2] Further training or education

[3] Illness

(36)

[4] Housewife or pregnancy

[5] Presently not working and not interested in employment

[6] Other _____ (specify)

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IV. JOB INFORMATION: (IF YOU HAVE NOT BEEN EMPLOYED AT ANY TIME SINCE GRADUATION FROM THE AREA VOCATIONAL-TECHNICAL INSTITUTE, SKIP TO SECTION IX, p. 4.)

DIRECTIONS: 1. If you were employed at any time since graduating from the area vocational-technical institute, *complete the following section of the questionnaire.*

2. Please supply the requested information for each of the following jobs held during the time since graduating from the area vocational-technical institute. (Include names and addresses.)

(1) First Job (first job after leaving vocational school)

(37) (41) ☐☐☐☐☐

(42) (44) ☐☐☐

(45) (46) ☐☐

Firm Name _____

Firm Address _____

_____

City _____

Job Title _____

Job Duties _____

_____

Immediate Supervisor _____

Check one: (47)
- ☐ 1 Full-time job
- ☐ 2 Part-time job

Check one:
- ☐ Job related to training
- ☐ Job not related to training

Number of *months* in this job since graduation from vocational school (48)(49) ☐☐

(2) Present Job (job you are presently employed in. If same as first job, write SAME.)

(50) (54) ☐☐☐☐☐

(55) (57) ☐☐☐

(58) (59) ☐☐

Firm Name _____

Firm Address _____

_____

City _____

Job Title _____

Job Duties _____

_____

Immediate Supervisor _____

Check one: (60)
- ☐ 1 Full-time job
- ☐ 2 Part-time job

Check one:
- ☐ Job related to training
- ☐ Job not related to training

Number of *months* in this job since graduation from vocational school (61)(62) ☐☐

(3) How many jobs, including your first and present job, have you had since leaving the area vocational-technical institute? (63) ☐

V. ADVANCEMENT INFORMATION

A. Have you had a formal advancement in job classification (other than just salary increases) since taking your first job after leaving the area vocational-technical institute?

(64) YES ☐ 1 (64) NO ☐ 2

B. NOTE: The following item need not be completed if you prefer not to complete it. Please do not include overtime when calculating your monthly salary. (Check the appropriate square.)

	Under $250	250-299	300-349	350-399	400-449	450-499	500-549	550-599	600-649	650-699	700+	
First Job Monthly Salary Range												(65-66)
Present Job Monthly Salary Range												(67-68)
	01	02	03	04	05	06	07	08	09	10	11	

(1) (2)
[0] [8]

VI. JOB SATISFACTION SURVEY: (IF YOU ARE NOT PRESENTLY EMPLOYED, SKIP TO SECTION VII.)

DIRECTIONS: The purpose of this survey is to enable you to express your feelings of satisfaction or dissatisfaction with your present job. Please answer all questions by placing an "X" in the appropriate square.

A. How do you feel about your present job?

(9)
- [1] Like it very much
- [2] Like it somewhat
- [3] Neither like nor dislike it
- [4] Dislike it somewhat
- [5] Dislike it very much

B. Considering the characteristics of your present job, rate the degree to which you are satisfied with each of the following:

	Satisfied	Not Sure	Dissatisfied			Satisfied	Not Sure	Dissatisfied	
1. Salary	[1]	[2]	[3]	(10)	7. Pace (speed) of work	[1]	[2]	[3]	(16)
2. Fringe benefits	[1]	[2]	[3]	(11)	8. Facilities and equipment with which to do the job	[1]	[2]	[3]	(17)
3. Potential for advancement	[1]	[2]	[3]	(12)	9. Working conditions	[1]	[2]	[3]	(18)
4. Supervision and management	[1]	[2]	[3]	(13)	10. Variety of work tasks	[1]	[2]	[3]	(19)
5. Co-workers	[1]	[2]	[3]	(14)	11. Job security	[1]	[2]	[3]	(20)
6. Company policies and practices	[1]	[2]	[3]	(15)	12. Safety conditions	[1]	[2]	[3]	(21)

TRAINING PROGRAM QUESTIONNAIRE: (IF YOU ARE PRESENTLY EMPLOYED OR HAVE BEEN EMPLOYED AT ANY TIME DURING THE YEAR SINCE GRADUATION FROM THE AREA VOCATIONAL-TECHNICAL INSTITUTE, COMPLETE THIS SECTION OF THE QUESTIONNAIRE.)

DIRECTIONS: Please answer all of the following questions concerning the quality of the curriculum and the quality of the facilities and equipment associated with the program from which you graduated. Place an "X" in the appropriate square.

VII. CURRICULUM

A. In light of your experience on the job, how do you feel about the training you received in basic job-related (performance) skills at the area vocational-technical institute?

(22)
- [1] Excellent
- [2] Very good
- [3] Adequate
- [4] Inadequate

B. In light of your experiences on the job, how do you feel about the training you received in job-related general technical knowledge at the area vocational-technical institute?

(23)
- [1] Excellent
- [2] Very good
- [3] Adequate
- [4] Inadequate

VIII. FACILITIES AND EQUIPMENT

A. The equipment at the area vocational-technical institute in my training area was such that:

(24)
- [1] I found it very easy to adapt to the equipment on the job.
- [2] I had some problems adapting to the equipment on the job.
- [3] I found it very difficult to adapt to the equipment on the job.

B. In comparison to the facilities and equipment used on your present job, how would you rate your area vocational-technical institute facilities and equipment?

(25)
- [1] Area vocational-technical institute facilities and equipment were superior to those on the job.
- [2] Area vocational-technical institute facilities and equipment were similar to those on the job.
- [3] Area vocational-technical institute facilities and equipment were inferior to those on the job.

THIS SECTION IS TO BE COMPLETED BY ALL

DIRECTIONS: Please answer all of the following questions concerning the quality of instruction and the quality of the school and community services associated with the school from which you graduated. Place an "X" in the appropriate square.

IX. INSTRUCTION

A. How would you rate the teaching quality of instructors in your training program at the area vocational-technical institute?

(26) [1] Most of the instructors taught very well.
(26) [2] About the same number taught well as did not.
(26) [3] Most of the instructors did not teach well.

B. How would you rate the knowledge your instructors at the area vocational-technical institute possessed about their field?

(27) [1] Most were very knowledgeable.
(27) [2] About the same number were knowledgeable as were not.
(27) [3] Most were not knowledgeable.

C. How would you rate the interest shown by your instructors in your work progress at the area vocational-technical institute?

(28) [1] Most instructors were very interested in my progress.
(28) [2] Most instructors were somewhat interested in my progress
(28) [3] Most instructors did not seem interested in my progress.

D. How would you rate the extent to which your instructors at the area vocational-technical institute were up-to-date in their fields?

(29) [1] Most instructors were up-to-date.
(29) [2] About the same number were up-to-date as were not.
(29) [3] Most instructors were not up-to-date.

X. If you could start all over again, would you choose the same training program you received training in at the area vocational-technical institute? YES (30) [1] NO (30) [2]

XI. SCHOOL AND COMMUNITY SERVICES

A. Who was the *greatest* help to you in securing your first job? (Check one.)

(31) [1] Instructor, or other area vocational-technical institute personnel
[2] Private employment agency
[3] Relatives or friends
(31) [4] State employment agency
[5] Other _____ (specify)
[6] Does not apply (I have not been employed during the year)

B. How would you rate the *quality* of the following services as provided by the *area vocational-technical institute*? If you did not take advantage of the service, or if the service was not available, check "does not apply." (Please check only one square for each item.)

	Excellent	Good	Poor	Does not apply	
1. Job Placement	[1]	[2]	[3]	[4]	(32)
2. Counseling with personal problems	[1]	[2]	[3]	[4]	(33)
3. Help in making career decisions	[1]	[2]	[3]	[4]	(34)
4. Help in securing part-time employment	[1]	[2]	[3]	[4]	(35)
5. Help in obtaining financial assistance	[1]	[2]	[3]	[4]	(36)
6. Help in securing housing	[1]	[2]	[3]	[4]	(37)
7. Youth organizations	[1]	[2]	[3]	[4]	(38)
8. Recreational programs	[1]	[2]	[3]	[4]	(39)
9. Study, library and other learning resource facilities	[1]	[2]	[3]	[4]	(40)
10. Health services	[1]	[2]	[3]	[4]	(41)

C. How would you rate the *quality* of the services and facilities provided by the *community* in which the vocational school is located? (Check appropriate square for each of the items.)

	Excellent	Good	Poor	Does not apply	
1. Housing	[1]	[2]	[3]	[4]	(42)
2. Job opportunities	[1]	[2]	[3]	[4]	(43)
3. Recreation facilities	[1]	[2]	[3]	[4]	(44)

4

APPENDIX II

Tables of the crosstabulation of original and duplicate responses relative to:

A-1 Number of Months Employed on First Job
A-2 Number of Months Employed on Present Job
A-3 First Job Monthly Salary
A-4 Present Job Monthly Salary
A-5 Overall Job Satisfaction
A-6 Satisfaction With Salary
A-7 Potential for Advancement
A-8 Satisfaction With Supervision and Management
A-9 Satisfaction With Company Policies and Practices
A-10 Satisfaction With Variety of Work Tasks
A-11 Curriculum Performance Skills
A-12 Curriculum Technical Knowledge
A-13 Job Placement
A-14 Counseling With Personal Problems
A-15 Help in Making Career Decisions
A-16 Help in Obtaining Financial Assistance
A-17 Recreational Programs
A-18 Learning Resource Facilities
A-19 Health Services
A-20 Housing
A-21 Job Opportunities
A-22 Recreational Facilities

Table A-1

Crosstabulation of Original and Duplicate Responses
Relative to Number of Months Employed on First Job
DUPLICATE

Count
Tot. Pct.

ORIGINAL	0	1	2	3	4	5	6	8	9	10	11	12	Row Total
0	5 5.2	0 0	1 1.0	1 1.0	1 1.0	0 0	0 0	1 1.0	0 0	0 0	0 0	3 3.1	12 12.4
1	1 1.0	2 2.1	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	4 4.1
2	1 1.0	0 0	3 3.1	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	0 0	0 0	5 5.2
3	2 2.1	0 0	1 1.0	5 5.2	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	9 9.3
4	1 1.0	0 0	0 0	0 0	4 4.1	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	6 6.2
5	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0
6	1 1.0	0 0	0 0	0 0	0 0	0 0	5 5.2	0 0	1 1.0	0 0	0 0	1 1.0	8 8.2
7	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2.1	0 0	0 0	1 1.0	3 3.1
8	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2.1	1 1.0	0 0	0 0	0 0	3 3.1
9	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	3 3.1	0 0	0 0	1 1.0	5 5.2
10	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	3 3.1	0 0	0 0	5 5.2
11	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	2 2.1	3 3.1	7 7.2
12	4 4.1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	25 25.8	29 29.9
Column Total	17 17.5	2 2.1	6 6.2	6 6.2	6 6.2	2 2.1	6 6.2	5 5.2	7 7.2	4 4.1	2 2.1	34 35.1	97 100.0

Table A-2

Crosstabulation of Original and Duplicate Responses
Relative to Number of Months Employed on Present Job

ORIGINAL

DUPLICATE

Count / Tot. Pct.	0	1	3	4	5	6	7	8	9	10	11	12	Row Total
0	13 13.3	1 1.0	0 0	1 1.0	0 0	0 0	1 1.0	0 0	1 1.0	0 0	0 0	2 2.0	19 19.4
1	0 0	2 2.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3.1
2	2 2.0	0 0	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3.1
3	1 1.0	0 0	3 3.1	2 2.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	6 6.1
4	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0
5	0 0	0 0	0 0	1 1.0	1 1.0	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	3 3.1
6	1 1.0	1 1.0	0 0	0 0	0 0	0 0	0 0	1 1.0	1 1.0	0 0	0 0	1 1.0	5 5.1
7	1 1.0	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	1 1.0	0 0	0 0	1 1.0	4 4.1
8	1 1.0	0 0	0 0	1 1.0	0 0	0 0	0 0	0 0	1 1.0	2 2.0	0 0	0 0	5 5.1
9	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3.1	0 0	0 0	1 1.0	4 4.1
10	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	3 3.1	2 2.0	7 7.1
11	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	2 2.0	4 4.1	8 8.2
12	9 9.2	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	20 20.4	30 30.6
Column Total	30 30.6	5 5.1	5 5.1	6 6.1	1 1.0	1 1.0	2 2.0	1 1.0	7 7.1	4 4.1	5 5.1	31 31.6	98 100.0

Table A-3

Crosstabulation of Original and Duplicate Responses
Relative to First Job Monthly Salary
DUPLICATE

ORIGINAL	No Response 0	Under $250 1	250-299 2	300-349 3	350-399 4	400-449 5	450-499 6	500-549 7	550-599 8	600-649 9	700 + 11	Row Total
0 No Response	13 13.4	3 3.1	1 1.0	0 0	1 1.0	2 2.1	0 0	0 0	1 1.0	0 0	0 0	21 21.6
1 Under $250	0 0	11 11.3	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	12 12.4
2 250-299	0 0	0 0	3 3.1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3.1
3 300-349	0 0	0 0	0 0	7 7.2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	7 7.2
4 350-399	0 0	0 0	1 1.0	2 2.1	5 5.2	2 2.1	0 0	1 1.0	0 0	0 0	0 0	11 11.3
5 400-449	1 1.0	0 0	0 0	0 0	1 1.0	10 10.3	1 1.0	0 0	0 0	0 0	0 0	13 13.4
6 450-499	0 0	0 0	0 0	0 0	1 1.0	1 1.0	4 4.1	1 1.0	0 0	0 0	0 0	7 7.2
7 500-549	1 1.0	0 0	0 0	0 0	0 0	1 1.0	1 1.0	4 4.1	0 0	0 0	0 0	7 7.2
8 550-599	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	2 2.1
9 600-649	2 2.1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	5 5.2	0 0	8 8.2
10 650-699	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	2 2.1
11 700 +	1 1.0	0 0	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	0 0	2 2.1	4 4.1
Column Total	20 20.6	14 14.4	6 6.2	9 9.3	8 8.2	17 17.5	6 6.2	7 7.2	2 2.1	5 5.2	3 3.1	97 100.0

Table A-4

Crosstabulation of Original and Duplicate Responses
Relative to Present Job Monthly Salary

COUNT / TOT PCT	DUPLICATE: No Response 0	Under $250 1	250-299 2	300-349 3	350-399 4	400-449 5	450-499 6	500-549 7	550-599 8	600-649 9	650-699 10	700 + 11	Row Total
0 No Response	25 25.8	3 3.1	2 2.1	1 1.0	0 0	2 2.1	1 1.0	1 1.0	1 1.0	1 1.0	1 1.0	0 0	38 39.2
1 Under $250	0 0	2 2.1	2 2.1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	4 4.1
2 250-299	0 0	0 0	3 3.1	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	4 4.1
3 300-349	0 0	0 0	0 0	2 2.1	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	0 0	3 3.1
4 350-399	3 3.1	0 0	0 0	0 0	2 2.1	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	6 6.2
5 400-449	2 2.1	0 0	0 0	0 0	0 0	4 4.1	2 2.1	0 0	0 0	0 0	0 0	0 0	8 8.2
6 450-499	0 0	0 0	0 0	0 0	0 0	1 1.0	4 4.1	2 2.1	0 0	0 0	0 0	1 1.0	8 8.2
7 500-549	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	3 3.1	0 0	0 0	0 0	0 0	4 4.1
8 550-599	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	1 1.0	4 4.1	0 0	0 0	0 0	6 6.2
9 600-649	0 0	0 0	0 0	0 0	1 1.0	0 0	0 0	0 0	4 4.1	0 0	0 0	0 0	5 5.2
10 650-699	1 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1.0	0 0	2 2.1
11 700 +	2 2.1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	7 7.2	9 9.3
Column Total	33 34.0	5 5.2	7 7.2	5 5.2	3 3.1	9 9.3	7 7.2	7 7.2	9 9.3	2 2.1	2 2.1	8 8.2	97 100.0

ORIGINAL

Table A-5

Crosstabulation of Original and Duplicate Responses
Relative to Overall Job Satisfaction
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	5	Row Total
0	12 12.2	4 4.1	0 0	2 2.0	0 0	18 18.4
1	0 0	38 38.8	3 3.1	0 0	0 0	41 41.8
2	2 2.0	6 6.1	18 18.4	0 0	1 1.0	27 27.6
3	2 2.0	1 1.0	0 0	4 4.1	0 0	7 7.1
4	0 0	1 1.0	2 2.0	1 1.0	1 1.0	5 5.1
Column Total	16 16.3	50 51.0	23 23.5	7 7.1	2 2.0	98 100.0

COUNT
TOT PCT

Table A-6

Crosstabulation of Original and Duplicate Responses
Relative to Satisfaction With Salary
(See questionnaire for category definitions)

COUNT / TOT PCT		DUPLICATE 0	1	2	3	Row Total
ORIGINAL	0	12 12.2	5 5.1	1 1.0	0 0	18 18.4
	1	0 0	33 33.7	5 5.1	3 3.1	41 41.8
	2	2 2.0	5 5.1	7 7.1	3 3.1	17 17.3
	3	1 1.0	2 2.0	0 0	19 19.4	22 22.4
Column Total		15 15.3	45 45.9	13 13.3	25 25.5	98 100.0

Table A-7

Crosstabulation of Original and Duplicate Responses
Relative to Potential for Advancement
(See questionnaire for category definitions)

COUNT TOT PCT		DUPLICATE				
		0	1	2	3	Row Total
ORIGINAL	0	15 15.3	2 2.0	2 2.0	1 1.0	20 20.4
	1	3 3.1	17 17.3	2 2.0	0 0	22 22.4
	2	0 0	8 8.2	17 17.3	5 5.1	30 30.6
	3	0 0	1 1.0	4 4.1	21 21.4	26 26.5
Column Total		18 18.4	28 28.6	25 25.5	27 27.6	98 100.0

Table A-8

Crosstabulation of Original and Duplicate Responses
Relative to Satisfaction With Supervision and Management
(See questionnaire for category definitions)

ORIGINAL	DUPLICATE 0	1	2	3	Row Total
0	12 12.2	5 5.1	1 1.0	0 0	18 18.4
1	3 3.1	45 45.9	5 5.1	1 1.0	54 55.1
2	0 0	4 4.1	9 9.2	3 3.1	16 16.3
3	0 0	2 2.0	2 2.0	6 6.1	10 10.2
Column Total	15 15.3	56 57.1	17 17.3	10 10.2	98 100.0

Table A-9

Crosstabulation of Original and Duplicate Responses
Relative to Satisfaction With Company Policies and Practices
(See questionnaire for category definitions)

COUNT / TOT PCT		DUPLICATE 0	1	2	3	Row Total
ORIGINAL	0	12 12.2	3 3.1	3 3.1	0 0	18 18.4
	1	4 4.1	38 38.8	6 6.1	0 0	48 49.0
	2	0 0	4 4.1	14 14.3	1 1.0	19 19.4
	3	0 0	1 1.0	5 5.1	7 7.1	13 13.3
Column Total		16 16.3	46 46.9	28 28.6	8 8.2	98 100.0

Table A-10

Crosstabulation of the Original and Duplicate Responses
Relative to Satisfaction With Variety of Work Tasks
(See questionnaire for category definitions)

COUNT / TOT PCT		DUPLICATE 0	1	2	3	Row Total
ORIGINAL	0	12 12.2	5 5.1	1 1.0	0 0	18 18.4
	1	3 3.1	50 51.0	6 6.1	0 0	59 60.2
	2	0 0	9 9.2	3 3.1	0 0	12 12.2
	3	1 1.0	1 1.0	0 0	7 7.1	9 9.2
	Column Total	16 16.3	65 66.3	10 10.2	7 7.1	98 100.0

Table A-11

Crosstabulation of the Original and Duplicate Responses
Relative to Curriculum Performance Skills
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	4 4.1	0 0	1 1.0	1 1.0	0 0	6 6.1
1	0 0	26 26.5	5 5.1	0 0	0 0	31 31.6
2	0 0	7 7.1	24 24.5	2 2.0	0 0	33 33.7
3	0 0	1 1.0	9 9.2	14 14.3	1 1.0	25 25.5
4	0 0	0 0	0 0	1 1.0	2 2.0	3 3.1
Column Total	4 4.1	34 34.7	39 39.8	18 18.4	3 3.1	98 100.0

Table A-12

Crosstabulation of the Original and Duplicate Responses
Relative to Curriculum Technical Knowledge
(See questionnaire for category definitions)

COUNT / TOT PCT		DUPLICATE 0	1	2	3	4	Row Total
ORIGINAL	0	5 5.1	0 0	1 1.0	0 0	1 1.0	7 7.1
	1	0 0	22 22.4	3 3.1	1 1.0	0 0	26 26.5
	2	0 0	14 14.3	21 21.4	3 3.1	0 0	38 38.8
	3	0 0	0 0	9 9.2	13 13.3	0 0	22 22.4
	4	0 0	0 0	0 0	2 2.0	3 3.1	5 5.1
Column Total		5 5.1	36 36.7	34 34.7	19 19.4	4 4.1	98 100.0

Table A-13

Crosstabulation of the Original and Duplicate Responses
Relative to Job Placement
(See questionnaire for category definitions)

ORIGINAL / COUNT TOT PCT	DUPLICATE 0	1	2	3	4	Row Total
0	0 0	1 1.0	1 1.0	0 0	1 1.0	3 3.1
1	0 0	13 13.3	3 3.1	0 0	1 1.0	17 17.3
2	0 0	6 6.1	12 12.2	1 1.0	2 2.0	21 21.4
3	2 2.0	0 0	2 2.0	12 12.2	4 4.1	20 20.4
4	0 0	0 0	5 5.1	0 0	32 32.7	37 37.8
Column Total	2 2.0	20 20.4	23 23.5	13 13.3	40 40.8	98 100.0

Table A-14

Crosstabulation of the Original and Duplicate Responses
Relative to Counseling With Personal Problems
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	2 2.0	0 0	0 0	0 0	2 2.0	4 4.1
1	0 0	7 7.1	3 3.1	0 0	2 2.0	12 12.2
2	0 0	5 5.1	21 21.4	1 1.0	6 6.1	33 33.7
3	0 0	0 0	1 1.0	2 2.0	3 3.1	6 6.1
4	0 0	0 0	5 5.1	2 2.0	36 36.7	43 43.9
Column Total	2 2.0	12 12.2	30 30.6	5 5.1	49 50.0	98 100.0

Table A-15

Crosstabulation of the Original and Duplicate Responses
Relative to Help in Making Career Decisions
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	2 2.0	0 0	0 0	0 0	2 2.0	4 4.1
1	0 0	6 6.1	1 1.0	0 0	1 1.0	8 8.2
2	0 0	6 6.1	20 20.4	0 0	9 9.2	35 35.7
3	0 0	0 0	2 2.0	4 4.1	7 7.1	13 13.3
4	1 1.0	3 3.1	9 9.2	1 1.0	24 24.5	38 38.8
Column Total	3 3.1	15 15.3	32 32.7	5 5.1	43 43.9	98 100.0

Table A-16

Crosstabulation of the Original and Duplicate Responses
Relative to Help in Obtaining Financial Assistance
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	2 2.0	0 0	0 0	0 0	2 2.0	4 4.1
1	0 0	9 9.2	6 6.1	0 0	1 1.0	16 16.3
2	0 0	3 3.1	7 7.1	0 0	7 7.1	17 17.3
3	0 0	0 0	1 1.0	2 2.0	2 2.0	5 5.1
4	0 0	3 3.1	7 7.1	0 0	46 46.9	56 57.1
Column Total	2 2.0	15 15.3	21 21.4	2 2.0	58 59.2	98 100.0

Table A-17

Crosstabulation of the Original and Duplicate Responses
Relative to Recreational Programs
(See questionnaire for category definitions)

COUNT TOT PCT	DUPLICATE 0	1	2	3	4	Row Total
ORIGINAL 0	1 1.0	0 0	0 0	0 0	2 2.0	3 3.1
1	0 0	7 7.1	1 1.0	0 0	0 0	8 8.2
2	0 0	3 3.1	12 12.2	2 2.0	10 10.2	27 27.6
3	0 0	1 1.0	3 3.1	8 8.2	3 3.1	15 15.3
4	0 0	0 0	2 2.0	0 0	43 43.9	45 45.9
Column Total	1 1.0	11 11.2	18 18.4	10 10.2	58 59.2	98 100.0

Table A-18

Crosstabulation of the Original and Duplicate Responses Relative to Learning Resource Facilities (See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	2 2.0	0 0	0 0	0 0	2 2.0	4 4.1
1	0 0	12 12.2	4 4.1	0 0	3 3.1	19 19.4
2	0 0	10 10.2	24 24.5	1 1.0	5 5.1	40 40.8
3	0 0	0 0	2 2.0	9 9.2	3 3.1	14 14.3
4	0 0	0 0	5 5.1	0 0	16 16.3	21 21.4
Column Total	2 2.0	22 22.4	35 35.7	10 10.2	29 29.6	98 100.0

Table A-19

Crosstabulation of the Original and Duplicate Responses
Relative to Health Services
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	2 2.0	0 0	0 0	0 0	2 2.0	4 4.1
1	0 0	4 4.1	1 1.0	0 0	2 2.0	7 7.1
2	0 0	3 3.1	15 15.3	1 1.0	11 11.2	30 30.6
3	0 0	0 0	1 1.0	3 3.1	3 3.1	7 7.1
4	0 0	4 4.1	11 11.2	0 0	35 35.7	50 51.0
Column Total	2 2.0	11 11.2	28 28.6	4 4.1	53 54.1	98 100.0

Table A-20

Crosstabulation of the Original and Duplicate Responses
Relative to Housing
(See questionnaire for category definitions)

ORIGINAL \ DUPLICATE	0	1	2	3	4	Row Total
0	1 1.0	1 1.0	1 1.0	0 0	1 1.0	4 4.1
1	0 0	5 5.1	2 2.0	0 0	0 0	7 7.1
2	0 0	6 6.1	23 23.5	0 0	10 10.2	39 39.8
3	0 0	1 1.0	0 0	11 11.2	2 2.0	14 14.3
4	0 0	0 0	2 2.0	1 1.0	31 31.6	34 34.7
Column Total	1 1.0	13 13.3	28 28.6	12 12.2	44 44.9	98 100.0

COUNT
TOT PCT

Table A-21

Crosstabulation of the Original and Duplicate Responses
Relative to Job Opportunities
(See questionnaire for category definitions)

ORIGINAL / COUNT / TOT PCT	DUPLICATE 0	1	2	3	4	Row Total
0	1 1.0	0 0	1 1.0	1 1.0	2 2.0	5 5.1
1	0 0	4 4.1	1 1.0	0 0	1 1.0	6 6.1
2	0 0	3 3.1	19 19.4	5 5.1	5 5.1	32 32.7
3	0 0	1 1.0	4 4.1	21 21.4	2 2.0	28 28.6
4	1 1.0	0 0	3 3.1	1 1.0	22 22.4	27 27.6
Column Total	2 2.0	8 8.2	28 28.6	28 28.6	32 32.7	98 100.0

Table A-22

Crosstabulation of the Original and Duplicate Responses
Relative to Recreational Facilities
(See questionnaire for category definitions)

ORIGINAL	COUNT / TOT PCT	DUPLICATE 0	1	2	3	4	Row Total
0		2 2.0	0 0	0 0	0 0	3 3.1	5 5.1
1		0 0	7 7.1	1 1.0	0 0	1 1.0	9 9.2
2		0 0	3 3.1	21 21.4	4 4.1	6 6.1	34 34.7
3		0 0	1 1.0	5 5.1	12 12.2	2 2.0	20 20.4
4		1 1.0	4 4.1	2 2.0	0 0	23 23.5	30 30.6
Column Total		3 3.1	15 15.3	29 29.6	16 16.3	35 35.7	98 100.0